

KB055 ENVIRONMENTAL CHAMBER

KB Series Overview

The KB series chambers are a top selling environmental chamber. It is quiet, easy to clean, highly reliable and ideal for laboratory use. It offers hot gas bypass control of refrigeration and resistive heat to facilitate reliable, critical temperature and humidity control.

KB09

The KB09 is a bench top environmental chamber. Units can be stacked with optional racking set-up.

KB030

The KB055 is a single-door environmental chamber.

KB055

The KB055 is a 2-door environmental chamber.

KB084

The KB084 is a 3-door environmental chamber.



Featured photo is the KB055 2-door environmental chamber open door view to show adjustable internal racks.



Featured photo is the KB055 2-door environmental chamber closed door view.



KB SERIES: ENVIRONMENTAL CHAMBERS

The KB series chambers feature hot gas by-pass technology which controls the temperature of the epoxy coated evaporator for greater uniformity. Compressors in our KB series of environmental chambers come with a three year warranty - which is one of the longest in the industry. All of these models run with 0.25 - 0.67hp compressors making them efficient enough to run on 15 amp, 110 volt circuits.

Quiet Operation

The KB chambers utilize quiet and highly efficient DC fans. Locating these chambers in laboratory workspaces is a viable option.

Superior Control and Uniformity

The ultrasonic humidification system provides excellent humidity control and avoids hot spots seen during chamber mapping of steam boiler equipped chambers. Standard control at the sensor in these chambers is $\pm 0.2^{\circ}\text{C}$ and $\pm 0.3\% \text{RH}$.

Options Available

Extended Temperature Range
Chart Recorders
Data Loggers
Dryers

Greatly Reduced Direct and Indirect Energy Loads

The KB Series chambers utilize less energy than comparable stability chambers and introduce less impact upon building cooling systems. This efficiency "dual benefit" allows our chambers to be located in spaces unsuitable for other chambers. Electrical energy savings by the KB series vs. steam boiler equipped chambers can easily amount to hundreds or thousands of dollars saved per year.

Widely Proven, Non-Proprietary Controllers

Standard controllers for the KB Series are manufactured by Fuji Electric and are ideal for environmental testing chambers. Unlike many proprietary controllers, this controller is commercially available and proven in tens of thousands of installations. Standard functions include: autotuning, fuzzy logic, PID control, programmable alarms, calibration capability, offset capability, etc. A touchscreen control interface is optional. Other controller manufacturers are also supported (Watlow, Allen Bradley etc.)

Services and Warranties

We offer technical support throughout the lifetime of your chamber. In addition to standard warranties, we also offer extended warranties for cooling components, parts and labor. We also provide qualifications, validations and preventive maintenance services at an additional cost. Please ask for a quote.

KB055 Environmental Chamber Specifications (ambient 21° C)

Performance	Standard	Optional
Temperature Range	2° C to 60° C	-5° C to 60° C with Optional Defrost
Ambient Temperature	21° C ± 3° C	Available
Temperature Control	± 0.2° C	Available
Temperature Uniformity	± 0.7° C	Available
Control Resolution	0.1° C	Available
Temperature Sensor	NIST Traceable Platinum RTD	Available
Humidity Range	Ambient to 90% @ 40° C Dewpoint	2 to 95% @ 22° C
Humidity Control	± 0.3%	Available
Humidity Uniformity	± 2 %	Available
Control Resolution	0.1%	Available
Humidity Sensor	NIST Traceable Rotronic HCS2	Other or Custom

Control System	Standard	Optional
Controller	Microprocessor based PID	West EC-44, Future Design Touchpad + More
Control Readout	Actual and Set-Point Values	Trending, Duty Cycle
Calibration Correction Capability	Standard 0.1 Resolution	Available
Uniformity Off Set	Standard 0.1 Resolution	Available
Alarm	Audible and Visual	Text, Email, Web Server, Remote Access
Alarm Type	Deviation in 0.1° C or 0.1% RH with Delay	Absolute 0.1 Resolution with Delay
Remote Monitoring	Dry Alarm Contact, RS 485 & Analog Output	Ethernet
Password Protection	Numeric	Numeric, Alpha Numeric
Audit Trail	N/A	Available
Universal Power Supply for Monitoring	N/A	Available

Construction	Standard	Optional
Exterior	Stainless Steel Door & Front, Aluminum Sides	Stainless Steel Door, Front & Sides
Interior	Aluminum Side Walls & Back, Stainless Steel Floor & Ceiling	Stainless Steel Side Walls, Back, Floor, Door Liner & Ceiling
Shelving	6 Gray PVC Coated, Adjustable 1" Increments, Supports Up to 150 lbs of Evenly Distributed Weight	Stainless Steel, Chrome Plate or Custom
Casters	2.79" Total Weight Capacity is 300 lbs per Castor, Not including the Weight of the Chamber	5" Casters or Seismic Legs

Capacity & Dimensions	Standard	Metric
Interior Capacity	46.6 ft³	1320 liters
External Dimensions	52.88" W x 35.81" D x 80.5" H	134.3 cm W x 90.95 cm D x 204.47 cm H
Internal Dimensions	47.5" W x 29" D x 58.5" H	120.65 cm W x 73.66 cm D x 148.59 cm H
Shelf Dimensions	21.5" W, 26.25" D	54.61 cm W x 66.68 cm D
Crated Weight	815 lbs	370 kg

Electrical	North America	International
Voltage	115 / 60 / 1	230 / 50 / 1
RLA	6	2.6 With Step Down Transformer
Cord Length	9 ft	9 ft

KB055 Environmental Chamber Technical Drawings

